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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,630	02/21/2002	Gary Hoffman	Hoffman G-3	1952
7590	10/03/2003		EXAMINER	
Henry I. Schanzer 29 Brookfall Road Edison, NJ 08817			LUK, LAWRENCE W	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/081,630

Applicant(s)

HOFFMAN, GARY

Examiner

Lawrence W Luk

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 12-22 is/are rejected.
- 7) ☒ Claim(s) 5-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (4,099,115) in combination with Kitagawa (5,898,234).

In regard to claims 1-3, 12, 14 and 18, Watanabe discloses a battery charging system comprising, a current source generating a first current; a resistor; a selectively enabled current switch, means connecting the current source in series with the resistor, the selectively enabled current switch, and the battery for selectively passing the first current through the resistor and the battery; means for sensing the voltage across the resistor (refer to Fig. 1, col. 2, lines 51-59), except for sensing the voltage across the battery for the condition when the selectively enabled switch is open and for the condition when the selectively enabled switch is closed.

Kitagawa shows sensing the voltage across the battery for the condition when the selectively enabled switch is open and for the condition when the selectively enabled switch is closed (refer to Fig. 8, col. 10, lines 22-35).

It would have been obvious to person having ordinary skill in the art at the time of the invention was made to modify the device of Watanabe to include sensing the voltage across the battery for the condition when the selectively enabled switch is open and for the condition when the selectively enabled switch is closed as taught by Kitagawa for controlling the switch in

accordance with the charge current.

In regard to claims 4, 13 and 15, Kitagawa shows the voltage sensed across the resistor is coupled to microprocessor circuitry and wherein the voltage sensed across the battery is also coupled to the microprocessor circuitry (refer to Fig.8, col.10, lines 22-35)

In regard to claim 16, Kitagawa shows the voltage sensed across the resistor and the voltage sensed across the battery are supplied to an analog-to-digital converter (ADC) and wherein the ADC produces output signals corresponding to the voltages sensed, and wherein these output signals from the ADC are supplied to a microprocessor for determining the value of the internal resistance of the battery (refer to Fig.8 and col.10, lines 22-35).

In regard to claim 17, Watanabe shows the battery voltage is sensed by means of a voltage divider connected across the battery (refer to Fig.3 and col.4, lines 66-68).

In regard to claim 19, Kitagawa shows MPU 39 including memory means for storing acceptable battery parameters; and wherein the calculated values of battery resistance are compared against the stored acceptable parameters (refer to col.10, lines 22-35).

In regard to claims 20-22, Kitagawa shows the test current is selectively and continuously applied and wherein the voltage across the battery is selectively and continuously sensed and the battery resistance is selectively and continuously calculated and the calculated values are continuously compared to stored parameters to ensure that the calculated values lie within an acceptable range (refer to col.1, line 61 to col.2, line 4).

### **Allowable Subject Matter**

3. Claims 5-11 are objected to as being dependent upon a rejected base claim. The prior art of record fails to teach or reasonably suggest that: Claim 5, the battery is a first battery for supplying power to the load, with a load current from the first battery flowing through the load within a first loop; and wherein the current source generating a first current includes a second power source for supplying said first current and wherein said first current flows through a second loop which includes the first battery and said second power source. Claims 6-11 are dependency on claim 5. Claims 5-11 would be allowable if rewritten in independent from including all of the limitations of the base claim.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Luk whose telephone number is (703)305-0617. The examiner can normally be reached on 7 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (703) 308-1680. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-7724 for regular communications and (703)305-7722 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1782.

LWL  
Sep 17, 2003

*Lawrence Holt*  
*examiner*  
*9/17/03*